

THE MEGATHERIUM, OR GREAT MONSTER.

Oh! wondrous relic of a former world.—BUCKLAND.

THE fossil remains of the animal we are about to describe, are found abundantly in the marshy country situated behind Buenos Ayres, washed by the river Parana and its tributaries. In dry seasons when the water is low, the bones of this animal may be seen projecting above the surface similar to stumps of trees. It was from this district that Mr. (now Sir Woodbine) Parish obtained the bones brought by him to London, some years since, and now deposited in the Museum of the Royal College of Surgeons.

During such a season as we have mentioned some of the inhabitants of the district saw the *pelvis** of this animal projecting above the surface of the water, and throwing a cord over it, they succeeded in drawing it to shore. It was then conveyed to the authorities of Buenos Ayres, from whom Sir Woodbine Parish obtained it. After which he sent some hundreds of miles into the country, had the river dragged and sounded, and finally succeeded in obtaining the skull, the tail, and spinal vertebrae, and the shoulder-bone.

* The circle of bones that extends from haunch to haunch.
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There is a specimen of the Megatherium in the Royal Cabinet of Natural History at Madrid, and, curious enough, the parts that are wanting in this specimen are supplied by the one brought to England by Sir Woodbine Parish. For instance, the pelvis in the Madrid specimen not being perfect, a doubt was entertained whether it formed a complete circle. M. Cuvier concluded that it did, and Sir Woodbine's specimen confirms his conclusion.

These bones have been examined by skilful comparative anatomists, and from their observations we have obtained an idea of this gigantic animal, which, though found in the newer strata, is more distantly removed from any existing animal, than any of the fossil remains that have yet been discovered. The Megatherium was a *tardigrade*, or slow-moving animal, and was at least the size of an ordinary ox. It had five thick toes, joined to a series of huge, flat, metatarsal bones, or those bones with which the toes are continuous, as in the human foot. "Some of the toes are terminated by large and powerful claws of great length; the bones supporting these claws are composed partly of an axis or pointed core, which filled the internal cavity of the horny claw; and partly of

a bony sheath, that formed a strong case to receive and support its base.* These claws were admirably adapted for the purpose of digging. The legs of this animal were of enormous size, its thigh-bone being upwards of two feet four inches long, and three feet five inches in diameter at the thickest part, or nearly three times the thickness of the same bone in the elephant! The *calcaneum*, or heel-bone, projected very much, being upwards of a foot in length. The other bones were almost as heavy in proportion. The smallness of the head in this animal is very remarkable, so much so that for a long time a doubt was entertained whether the skull found with the remains of the *Megatherium*, belonged to the same animal; but it was at length determined by an ingenious geologist, who having joined the vertebrae together, found that the last vertebrae of the neck fitted precisely into the articulating processes of the skull. But the most remarkable portion of this extraordinary creature's structure was the coat of armour, formed of solid bone, varying from three-quarters of an inch, to an inch and a half in thickness, which covered its hide similar to the substance in which the armadillo is encased.

The habits of the *Megatherium* are well explained by Dr. Buckland, who, after stating that with the head and shoulders of a sloth, it combined, in its legs and feet, an admixture of the characters of the ant-eater and the armadillo, and resembled those animals still more in being cased in a coat of armour, says, "Its haunches were more than five feet wide, and its body twelve feet long, and eight feet high, its feet were a yard in length, and terminated by most gigantic claws; its tail was probably clad in armour, and much larger than the tail of any other beast among living or extinct mammalia. Thus heavily constructed, and ponderously accoutred, it could neither run, nor leap, nor climb, nor burrow under the ground, and in all its movements must have been necessarily slow; but what need of rapid locomotion to an animal, whose occupation of digging roots for food was almost stationary? and what need of speed for flight from foes, to a creature whose giant carcass was encased in an impenetrable cuirass, and who, by a single pat of his paw, or lash of his tail, could in an instant have demolished the cougar or the crocodile? Secure within the panoply of his bony armour, where was the enemy that would dare encounter this behemoth of the Pampas, or in what more powerful creature can we find the cause that has effected the extirpation of his race?"

"His entire frame was an apparatus of colossal mechanism, adapted exactly to the work it had to do, strong and ponderous in proportion as this work was heavy, and calculated to be the vehicle of life and enjoyment to a gigantic race of quadrupeds, which though they have ceased to be counted among the living inhabitants of our planet, have in their fossil bones left behind them, imperishable monuments of the consummate skill with which they were constructed†."

The *Megatherium* was so named by the late M. Cuvier, from the Greek words *megas*, great, and *therium*, monster.

Under this head we may also notice another tardigrade animal, somewhat similar to the *Megatherium*, which has received from President Jefferson, who first examined its bones, the name of *Megalonyx*‡. Its remains were discovered in a cavern in Virginia. Jefferson supposed the claw of this animal to be that of an extinct species of feline animal, while Cuvier contended that the animal to which the claw belonged was herbivorous, that is to say, it lived on vegetable substances. This was subsequently proved to be correct by the discovery of other bones. This animal appears to have been a little smaller in size than the *Megatherium*. According to Cuvier, the *Megalonyx* was herbivorous, in manner resembling the sloth since its teeth were precisely similar to those

of that animal. It was also similar to the sloth in many of its habits, but its great size must have prevented its being perfectly analogous to that animal; for example, it could seldom climb up trees, as it could but very rarely have met with any sufficiently strong to bear its ponderous weight. But its height would enable it to browse, like the sloth, among the leaves of the trees, without its being under the necessity of climbing any but such tall and strong trees as could sustain its weight. It is even possible that the weight of the animal may have been serviceable in bending down, and, perhaps, in breaking the high branches which held its food.

Remains of the *Megalonyx* are found only in the newer Tertiary Strata.

Is it possible, we would ask, to look upon the remains of these once powerful animals, and not to feel the full force of an *All-creative Power*? or can it, with truth, be said, that the study of geology tends to weaken our belief in a Deity? No! rather let it be said, that, by careful pursuit of this delightful science, we are led into deeper delight and more awful contemplation of that *Beneficent Ruler* who called our world into being, and, as we know from revelation, will some day cause it to pass away.

J. G. C.

CAPERS.

CAPERS afford one of those few examples in which the flowers of a tree are used as articles of food. In some country places the flowers of the *marigold* are used in soups: the receptacle of a few other flowers is held in estimation; such as the bottom of the *artichoke*, the *cardinal thistle*, and the *sunflower*. In some parts of India the blossoms of the *Mahwah* tree are dried like raisins, and the produce of one tree often weighs above three hundred pounds. They are eaten raw, or in curries, or boiled with rice. The unexpanded corollas of the *marsh marigold* are often used as a substitute for capers, and are known as Swedish capers.

Capers are the unexpanded flower-buds of the caper tree (*Capparis spinosa*), preserved in vinegar. This tree is a native of Italy and Sicily: it grows in the crevices of rocks and on ruins, and is found adjoining the walls of Rome and Florence, giving them an exceedingly gay appearance. It is also common in the south of France, in some parts of which it is cultivated. Here it overspreads the ground in the manner of brambles. It is a trailing shrub: the stem is woody, sending out many side branches; the shoots rise two or three feet and then tend to grow downwards. From under each of the branches proceed two crooked spines; directly above these the stalks of the kidney-shaped leaves are produced. Large white flowers, from the centre of each of which proceeds a long tassel of deep lilac stamens, bloom naturally through the summer; but before they expand their buds are plucked. Each plant of the caper-bush yields on an average a pound of buds.

The caper was introduced into this country as an exotic so early as 1596. Horticulturists are of opinion that with careful training it might be raised in the open air in England. In the garden at Campden House, Kensington, a caper tree is said to have lived in the open air for nearly a century: it was sheltered from the north, but remained uncovered during winter: it was usually much injured by the frost, but the roots being strong and active it sent out hardy shoots, and produced flower-buds every year. In the neighbourhood of Paris it is cultivated successfully, with no other shelter than a low wall, against which it is trained: in winter the shoots are laid down, and covered with litter or fern.

The cultivation of the caper for the purposes of commerce is confined to a comparatively narrow tract of country in the south of France; viz., at Cuges and Roquevaire, in the department of the Bouches du Rhone,

* BUCKLAND'S *Bridgewater Treatise*.

† The South American region in which the remains of the *Megatherium* abound.

‡ BUCKLAND'S *Bridgewater Treatise*.

§ This name appears to be compounded of the words *megale*, great, and *onyx*, muscle, as referring to the great strength of this creature.

and at Olionlles, in the department of du Var, and in the immediate neighbourhood of these places.

The number of stamens of the caper flower varies considerably with the mode of culture, and the object of the cultivator is to increase this number as much as possible, because upon it depends the firmness and roundness of the bud. Upon this fact are founded the three varieties which the caper merchants designate as *flat*, *Capucines*, and *round*. The first variety never produces more than fifty stamens, the second never exceeds one hundred, and one hundred and fifty is the limit of the third. It is curious also that the different modes of culture adopted in each of the three caper districts already named, cause a considerable difference in the number of the stamens, and consequently in the amount of trade which each place can command. Thus the capers of Olionlles produce from one hundred and twenty-five to one hundred and thirty stamens each; and here the trade is much smaller than at Roquevaire, where a caper has from one hundred and thirty-five to one hundred and forty stamens; but the most abundant and lucrative caper harvest is at Cuges, where each caper can display from one hundred and forty-five to one hundred and fifty stamens.

The flat caper is so little valued that attempts are made rather to exterminate than to improve it. The flat caper, however, is the stock whence all the others were originally obtained: by proper cultivation the number of stamens may be multiplied so as to transform the flat caper first into the capucine, and then into the round variety. This transformation is of the same kind as that which is produced in horticulture, in the passage of simple flowers into double ones: in this case the petals are multiplied; in the other case the stamens are so. The capucine is distinguished by its angular shape and its dark green colour with a rusty tint on the side exposed to the sun. The round caper, so called from its perfectly rounded or slightly oval shape, is firm, and even hard to the touch: its colour is green, but mixed with a tint of purplish red, which is one of its most decided recommendations to the caper merchant, because this tint disappears when the caper has remained more than a year in vinegar.

The caper harvest is gathered in between the months of June and August. The gathering is performed by women, each wearing a sort of flexible basket round the waist for containing the buds; one woman will pick as many as twenty-five or thirty pounds' weight of buds in a day. The picking must not be begun until seven or eight o'clock in the morning, when the sun has dried up the dew. To determine the precise state, when the buds are fit for gathering, is a point of great nicety and importance, as upon it depend the beauty and durability of the capers, and their value in the market. The plantations are divided into so many compartments, each of which is visited every week during the season: an experienced picker will be able to tell the precise day when the shrubs will require another visit. There is a small and choice form of bud called the nonpareil, which must be gathered on the very day that it attains a certain state: if allowed to remain till the next day it becomes a capucine; and if not gathered then, it forms, on the third day, a third variety known as the capote. These three qualities are the only ones which ought to be sent into the market: they are perfectly well known to the merchants, and fetch a higher price than the buds gathered at random; in fact, there are no less than seven varieties offered for sale, which depend entirely upon the state of the bud, that is, on the difference of a few hours, sooner or later, in the gathering.

It is, of course, very difficult to arrange matters so as to gather all the buds in regular succession, so as to prevent any one from bursting. In an uncertain climate like ours, it would be impossible: but in the more settled climate of Cuges, it is said to be almost impossible

to find a single expanded bud. In the other districts the cultivators are not so scrupulous; they even allow the flower occasionally to ripen into fruit, which is a kidney-shaped seed, and mixed with the commoner sort of capers is frequently sold. This practice is condemned, because it exhausts the shrub and greatly lessens its value from year to year; and also deranges the regular formation of the flower-buds, on the particular boughs where the seed was allowed to ripen.

It is a common practice after the gathering to expose the buds, for a day or two, on a linen cloth to the action of the air. During this time they soften, shrivel up, and part with an acid juice which would otherwise injure the vinegar.

But the most successful cultivators reprehend this method, because it alters the roundness, softens the substance, dims the colour, and dissipates the perfume of the buds. The acid juice, say they, is scarcely perceptible in the best capers, and in the inferior varieties it may be removed by changing the vinegar. They recommend that the buds as soon as gathered be sorted, all extraneous substances picked clearly off, and the capers plunged into vinegar immediately. In some places the buds are separated into sizes, by being riddled through sieves of different degrees of fineness.

In Provence the cultivators generally make their own vinegar, and this should be perfectly clear and if possible free from colour. The capers should be preserved in closely covered wooden vessels, and the quantity of vinegar not too large. Like all fruits preserved in vinegar, the caper ought to retain its peculiar qualities and appearance; the vinegar serves the same purpose as alcohol, it penetrates the bud without changing its nature, but only communicates an acid taste. The best capers neither absorb nor change the nature of the vinegar, the inferior sorts imbibe it like a sponge, destroy the qualities of the vinegar, become so penetrated by it that they dissolve in it, and after a time putrefactive fermentation is the consequence. The best cultivators use only the choicest buds, and the finest vinegar; they fill up each cask as quickly as possible at two or three gatherings; frequently draw off the vinegar after eight days' steeping, and add a fresh supply; then fasten up the cask and do not allow it to be in any way disturbed until the sale.

The caper sales generally take place in September. On the day fixed for the delivery of the capers the vinegar is drawn off, and the capers set in baskets to drain; they are then weighed and delivered to the merchant, who usually conveys them away in large casks, into which he returns the vinegar in which the capers have been preserved, which belongs to him, not of right, but as a sort of perquisite when the sale is completed. The merchants export the capers to different parts of Europe. The consumption of capers in this country is small, not averaging more than 60,000 pounds a year; and a portion of this is from Sicily.

The reader may probably be surprised at this long notice of so trivial an article of luxury as capers; but our remarks might be considerably extended; so true is it that a diligent search after all that is known on any subject, however insignificant, most generally supplies a fund of interesting and curious information. In the case of an article of food, such knowledge occurs to us at the time of eating it, and, to our mind, greatly improves the flavour, and gives pleasure to ourselves and our companions at the table.

DEATH, which threatens us daily from a thousand accidents, and by the very shortness of life cannot be far off, doth not deter a wise man from making provision for his country and his family, that may extend to distant ages, and from regarding posterity, of which he may have no sensation. Wherefore a man may, though persuaded that his soul is mortal, act for eternity, not from a desire of glory, which he will be insensible of, but from a principle of virtue, which glory will attend, though that is not his view.—CICERO.

PLANT-LIKE ANIMALS.

V.

In the order of polypi which consists of animals having gelatinous bodies without any horny axis or support, we find a family which may be likened to lilies of the valley, though not always, like them, bearing many bells on the same stalk. Cuvier characterizes them as having a fixed stem, often branched and very much divided, each branch of which terminates by a body in the form of a trumpet or bell. From this bell two opposite bundles of filaments issue, which maintain a continual motion, and attract the minute substances on which the animal feeds. The species are numerous in our seas, but are, generally speaking, too small to be distinguished except by the microscope. They form bushes, plumes, and other shapes, of a pleasing kind. The body itself is like a purse, or like a monopetalous flower, seated on a soft, naked stem or filament, and this stem is attached to some object lying under the water. On the least alarm the animals contract this stem, in an undulating manner, as represented in fig. 1, but at other times they

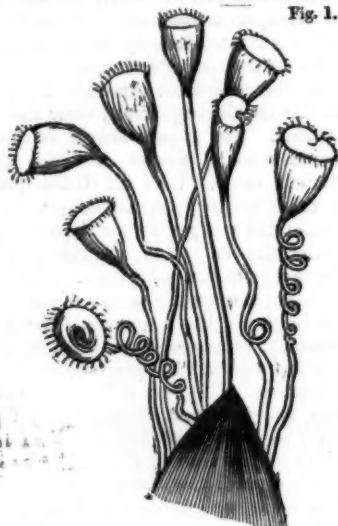


Fig. 1.

Vorticella nebulifera, highly magnified.

stretch it out to the utmost, exploring the surrounding space in search of food. Muller has observed in one of the species a remarkable mode of increase. When an individual of *Vorticella racemosa* fixes itself on a submerged substance, presently, that is, within a few hours, eight similar bodies rise from its base, each having its own proper stem, and being a complete individual. In a short time afterwards from each of these new bodies spring eight others, also provided with their proper stems, and which go on to propagate like the others. During this time the branches of the first and second order cross like the branches of a vegetable.



Seriataria lundigera, magnified, and natural size.

In the third order of polypi, or that in which the animals have corneous or calcareous cells, we find, along with some species described in our last, a curious little zoophyte having the branched habit of the preceding, but bearing on each of its branches a number of regular cells, like the organ-pipes of *Tubipora musica*. This is the *Seriataria* of Lamarck.

Much more elaborate and striking to the eye, as well as of much larger size, is the *Gorgonia*, of the same order, which, like the coral, is a

close imitation of vegetable forms. The axis or stem of this polypus is enveloped in a bark, the flesh of which is so full of calcareous grains that it dries up on the stem and often preserves its colours in a state of great beauty and vivacity

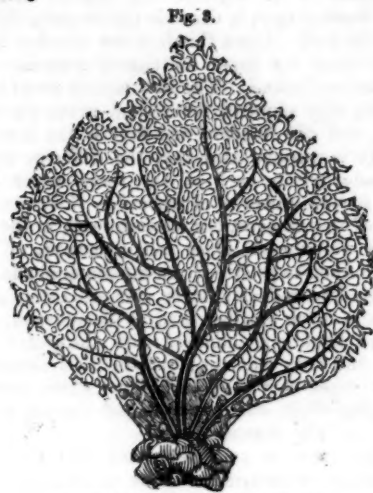


Fig. 3.

Gorgonia flabellum, less than nature.

The substance of which the stems and cells of *Gorgonia* is formed can be dissolved in acids. The animals of several of the species have been observed, and it is ascertained that they have eight feelers, a stomach, &c., like the animals inhabiting the coral. Of all these animals which contribute, in a greater or less degree, to create changes on the face of the globe by their continual growth and silent operations, we may apply the remark made on particular species which are supposed to contribute the largest share in these proceedings.

They roughen the bottom and fill up hollows in every shallow sea; they occupy the tops of reefs in deeper ones, and bar up the entrance to harbours and lagoons; they cap sub-marine mountains, and bring them to the surface; and they lay up everywhere the materials for the formation of future quarries of limestone.

Somewhat higher in the scale of organization are those extraordinary animals, commonly called Sea-nettles or Sea-anemones. These form the first order in the class Polypi, and comprehend fleshy animals which have the habit of fixing themselves by their base, but several of which can also move about and swim, or suffer themselves to be carried away by the motion of the waters.

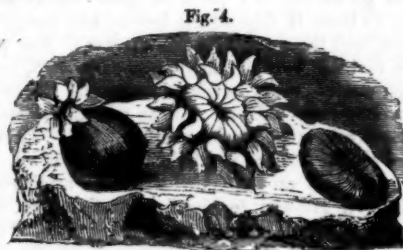


Fig. 4.

Actinia, or *Sea-anemones*.

The body of this animal, in its most contracted form, represents a hemisphere, with a small opening in its summit. This is the position usually maintained by the actiniae in obscure weather, or when the sea is boisterous. But in calm and bright days they present a very different appearance. They then expand until the aperture at the top is nearly as broad as the base, and the body is thus converted into a short cylinder. The mouth now exhibits several rows of tentacula or feelers, which cluster round it like the petals of a double flower, and are beautifully coloured. This singular

formation of the actiniae has gained for them such names as sea-anemone, sea-marigold, sea-daisy, carnation, sunflower, &c. The food of these animals consists of small mollusca, shrimps, &c., which they seize with their feelers and convey to the stomach. The food is retained in the interior of the body for ten or twelve hours, until the nourishment has been extracted from it, when the solid parts are rejected by means of the mouth. The stomach of the actinia is not, like those of the polypi hitherto described, one with the sides of the body itself; but constitutes a separate organ, between which and the skin of the animal spaces intervene. Some long, tortuous, and very slender intestines have likewise been observed, but nothing has been found which can be regarded as nerves or blood-vessels.

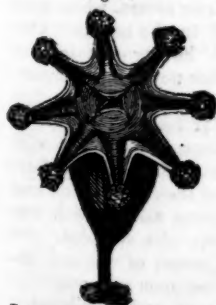
These animals are able to bear very long fasts, while they remain in sea-water, but if placed in fresh-water they immediately perish. They are extremely sensible to light, and are startled by noise, as well as affected by odours. When hungry they expand the mouth as widely as possible, and even turn the stomach altogether, rendering it convex instead of concave. Some of the species disengage themselves from the rocks when they wish to change their situation, and, swelling themselves with water, are carried along by the current. Then again contracting their bodies they sink to the bottom, and glue themselves firmly to some object there. These animals have the same singular power of reproduction as the hydra. They may be cut perpendicularly or across, and each cutting will produce a new animal. Hughes gives a curious account of some actiniae which he observed in a sub-marine rock basin at Barbadoes. In the middle of this basin there is a fixed stone or rock, always under water, and it was on the sides of this rock that he observed certain substances having the appearance of fine radiated flowers, of a pale yellow, or bright straw-colour, tinged with green, and much resembling a single garden marigold.

I have attempted (says Mr. Hughes) to pluck one of these from the rock to which they are always fixed, but never could effect it: as soon as my fingers came within two or three inches of it it would immediately contract, close together its yellow border, and shrink back into the hole of the rock; but, if left undisturbed for about four minutes, it would come gradually in sight, expanding, though at first very cautiously, its seeming leaves, till at last it appeared in its former bloom. However, it would again recoil, with a surprising quickness, when I came within a little distance of it. Having tried the same experiment by attempting to touch it with my cane and a small slender rod, the effect was the same.

Though I could not contrive to take or pluck one of these animals entire, yet I once cut off (with a knife which I had held for a long time out of sight, near the mouth of a hole out of which one of these animals appeared), two of these seeming leaves. These, when out of the water, retained their shape and colour; but being composed of a membrane-like substance, surprisingly thin, it soon shrivelled up and decayed.

Mr. Hughes goes on to state that the curiosity excited by the appearance of these animals brought many persons to the spot, to the annoyance of the owner of some grounds through which they were obliged to pass. He being, therefore, determined to rid himself of the objects of curiosity, caused all the holes of the rock in which the actiniae lay hid to be bored with an iron instrument, so that their bodies must have been crushed to a pulp; nevertheless, in the course of a few weeks, they all re-appeared in the very same places as before.

Fig. 5.



Lucernaria octo-radiata, highly magnified.

Nearly approximating to the actiniae, and, therefore, placed by Cuvier in the same order, is a family called *Lucernaria*. These are soft-bodied animals, which fix themselves to different kinds of sea-weed, and to other marine substances, by means of a slender stem or pedicle. Their upper part is dilated into a form which may be compared to that of the flower called African marigold. The tentacula or feelers are arranged in bundles at the extremity of the branches or petals, and the mouth is in the centre. In *Lucernaria quadricornis* the edge is divided into four forked branches, each supporting two groups of tentacula, while in the species here figured, the edge consists of eight divisions, with a corresponding number of groups of tentacula.

SOME ACCOUNT OF ANCIENT AND MODERN FAIRS.

I.

FAIRS were formerly institutions of great importance and utility, facilitating an interchange of commodities, and an intercourse of individuals, which the appliances furnished by the progress of modern improvement enable us now to accomplish by other and preferable proceedings. Even now the fairs in some parts of the world, especially where the population is scattered, and the means of intercommunication limited, are much frequented, and prove of great service. Their origin is traced back to antiquity, for some such institutions seem to have existed among the Greeks and Romans. It is to be supposed, indeed, that when vast multitudes were periodically assembled together at the various games and festivals, the opportunity would be seized of administering to their various wants, by means analogous to fairs of modern times. Cicero, speaking of the Olympic games, says, some came there to sell, and others to buy. The *Nundinae* of the Romans, at which the country people used to resort to the capital every ninth day, after eight days' work, to dispose of the results of their labours, and to purchase commodities of which they stood in need, seem originally to have resembled our market days, rather than our fairs: but, in fact, a fair may be considered as a market upon a large scale. As the Roman empire enlarged in size, the *Jus Nundinarum*, or right of holding fairs, was extended to the various chief magistrates of the colonies; and Suetonius tells us, that the Emperor Claudius endeavoured to acquire popularity by applying to the consuls, as a private person, for permission to hold a fair upon his estate. The assembling of crowds from the vicinity at the *Nundinae*, offered a favourable opportunity of publishing laws and decrees, and these were considered as established, when they had been read publicly at three separate *Nundinae*. Justin alludes to the letters of Alexander recommending the recall of the exiles, being read at the Olympic games: and, formerly, in our own country, the laws passed in each session of parliament were, by the king's writ to the sheriff, directed to be proclaimed in all fairs and markets. Hence, too, the origin of the various public proclamations which still exist.

The word fair, is derived by some from "*Forum*," Market: and this term was sometimes applied by the Romans indiscriminately to the *Nundinae*, or to the judicial courts attached to them; and fairs were called "*fora*" as low down as the Conqueror, in this country. Others derive it from *Feria*, a holiday or festival, whence also, says Bishop Kennet, comes the word fare, as in good fare, fare-well.

As Dr. Pettingal observes, the institution of fairs followed wherever the Roman conquests extended; and many of those of Germany trace their origin to privileges conferred by the Gothic sovereigns. From Germany they spread to France, and the most accurate account of the jurisdiction of fairs is found in the *Grand Customier*, or code of Norman laws. In the middle ages

the clergy, observing the profitable revenue derivable from the tolls, dues, &c., and the great local influence to be thereby acquired, frequently obtained from the sovereign charters for holding and directing these fairs. Indeed, religion connected itself, in those times, with every event, and many fairs were originally established in consequence of the crowds which assembled at the anniversary of the saint's-day, to whom the church was dedicated—a vestige of which custom is found existing in the village "feasts" of our own day. The word *Messe* in German signifies equally a fair, and a religious ceremony. So too, as Spelman observes, at the *feriæ* of the early Christians, dealers were accustomed to bring, especially at the feasts of the dedications, their commodities even to the churches and cemeteries. This afterwards, by reason of the great crowds drawn together, some for religious, some for commercial purposes, led to great abuses, and various sacrilegious disorders. St. Basil, towards the end of the sixth century, complains of the crowds profaning his church as a Jewish temple, prior to its purging by Christ. The same custom and ill consequences prevailed in our own country, (as, for example, at St. Bartholomew's Priory, and St. Peter's, Westminster,) and was prohibited by several proclamations and acts of parliament, especially in the 13th of Edward II. But the repeated and severe punishments denounced, show how difficult the prevention of holding fairs and markets on Sundays, and near the churches, was found to be. When a fair was held within the precincts of a cathedral or monastery, an oath to avoid stealing, lying, or cheating, during its existence, was frequently administered to all who sought admission. When Muratori wrote, there was still to be seen in the atrium of the Lucca cathedral a marble bearing the inscription of the oath to be taken for faithful dealing.

The establishing a fair has always been considered as a part of the royal prerogative, and the right of holding one was frequently granted as a reward for the meritorious conduct of the inhabitants of the place, being a boon of great utility to them, and costing little to the sovereign according to it. Some fairs are subject to certain tolls, payable by the buyers, but to others termed "Free Fairs" all persons whether native or foreign were freely admitted and encouraged to repair. Freedom from arrest during their continuance was one of the numerous privileges of those attending them—a privilege oftentimes shielding some very unworthy characters. By a statute of Henry VII. a citizen of London was allowed to carry his wares to any fair or market of the kingdom. The duration of fairs was limited in their proclamation, and the persisting to sell after this had expired, entailed the forfeiture of double the value of the goods sold. Courts for the summary administration of justice in all cases of litigation as to bargains, pilfering, and other crimes occurring during the fair, have always been held. The same prevailed at the *Nundinæ* of the Romans, and were called *Fora*. The same Greek word signifies a market forum, and a judicial forum. In England, this is called the Court of *Pie-poudre*. In the 17th Edward IV. rectifying abuses in this court, which had usurped the privileges of the higher courts of the realm, it is said, "To every fair of right pertaineth a court of pie-poudres to minister in the same due justice." Originally held in the open parts of the country, by an edict of William III. they were removed to cities and other safe places, and all proceedings directed to take place publicly, and with due regard to justice. The Normans probably introduced this court among us, as they had a description of inferior judges for the jurisdiction of offences committed during fairs.

The derivation of *pie-poudre* has given rise to difference of opinion. Spelman and Coke suppose it to have arisen from the celerity with which justice was administered, almost, as it were, before the suitors could shake the dust from their shoes. It seems, however, more

probable, says Pittingal, that such courts, if even they existed before, were called *pie-poudres* after the Conquest because they were chiefly occupied in deciding disputes among the country people, who, from their dusty shoes were called "*piez-poudreux*." The rustics were in like manner termed by the Greeks "*Dusty-foot*;" and Amyot, translating the expression from Plutarch, renders it *piez-poudreux*. The pedlars going from fair to fair are mentioned in the Scotch Borough Laws, quoted by Skene, as "*piez-poudreux* or *dustifute*." The Latin authors frequently confer the appellation of "*dusty feet*" on those engaged in travelling.

In the middle ages fairs were of great importance, and attended by vast multitudes. Persons of all ranks and from every country were among the visitors; commodities in every variety, and of the most opposite nature, were to be found on sale. During the fairs of St. Giles's Hill, near Winchester, which lasted sixteen days, it resembled an immense city, having its streets of tents each designated by the names of the trades and occupations by which they were frequented. "To such fairs (says Dr. Henry) our kings, prelates, and great barons sent their agents, and others went in person, to purchase jewels, plate, cloths, furniture, liquors, spices, cattle, corn, and provisions of various kinds, and, in a word, everything they needed, men and women not excepted. For we are assured by a cotemporary writer of undoubted credit that men and women slaves were publicly sold in the fairs of England, like beasts, near the conclusion of the fourteenth century."

The hiring of servants at fairs has here been possibly mistaken for the selling of slaves. Even so late as 1512 the *Northumberland House Book* informs us that the stores of the mansion at Wresille, consisting of "wine, wax, beiffes, and muttons, (salted oxen and sheep), wheite, and malt, &c.," were laid in at the fairs for a whole year: and in the time of Henry VI. several monasteries provided their annual supplies from Stourbridge fair, although situated sometimes a hundred miles distant from it. Owing to the prodigious concourse of people the fairs were usually held in plains or fields, but at other times in open spaces, under porticos, or in the streets of the towns.

These great concourses at fairs were sometimes productive of evil, in facilitating the spreading of contagious diseases. James I., in 1603, issued a proclamation, forbidding the holding of Bath and Stourbridge fairs for this reason, and in 1604 another, forbidding Londoners to resort to Bristol fair, as in that city the plague was still raging; denouncing punishment on all such as disregarded the injunction, "which we shall have so much the more cause severely to inflict, because our retourne to our sayd cite of London is like to bee very soone for an abode there, about greate and waighty causes, from which by reviving of the sicknesse in that place (which, God forbid,) we might be put off, to the greate hinderance of affaires."

Business was not the sole occupation at fairs. Sellers, at a very early period, in order to attract purchasers, encouraged the presence of buffoons, jugglers, minstrels, &c. The civic authorities were accustomed to repair to St. Bartholomew's fair to witness the contests in archery, wrestling, and other athletic sports, while even celebrated actors were once found in the booths. One Fowkes, a juggler, died in 1730, having amassed ten thousand pounds. M. Soutie, in his novel, the *Vicomte de Bezier*, gives a graphic description of the free fair held at Montpellier, when a regular king or provost of the revels was elected. The Romans exhibited wild beasts much as we do at the present day. Many fairs have survived the original cause of their institution, and the department called the "pleasure fair," which was formerly very secondary with those who attended, now remains the only attraction. The scenes of vice and disgusting immorality too often exhibited upon such occasions cannot be too much deprecated, or too early abolished.

THE ART OF WRITING.

IV. MODERN SYSTEMS OF WRITING.—
MULHAUSER'S METHOD.

Beasts may convey, and tuneful birds may sing
Their mutual feelings in the opening spring;
But man alone has skill and power to send
The heart's warm dictate to the distant friend.—CHAMBER.

IN the State of Virginia there is a law that no person, on pain of flogging, shall teach a negro child to read and write. If we feel that such a law is arbitrary and unjust, and only worthy of the degraded system with which it is associated; so shall we also be led to regard as peculiarly unwise and selfish the opinion, too long prevalent in this country, though now, we trust, fast wearing away, that the children of the poor have no need of education, and are better fitted for many departments of service by being kept in ignorance, if not of the art of reading, yet, at any rate, of that of writing.

It would be useless to deny that both these valuable arts are liable to great abuse. When we teach a boy to read, we cannot ensure the right employment of the gift. We have imparted to him a power which he may employ to good or evil purposes. He may use the newly-acquired art in becoming acquainted with the word of God, and with the writings of the best and wisest of men, or he may abuse it by the perusal of obscene or blasphemous publications, the production of the most depraved of his species. In like manner when we teach a girl to write and cipher, we enable her to become much more useful to her mistress (if she is in service) by keeping accounts correctly, and by performing those various offices in which a knowledge of writing is required, at the same time that we give her the means of solacing some distant friend, perhaps an aged parent, with tidings of her welfare. Yet we cannot ensure this appropriate use of the gift; on the contrary, unless good principles have been instilled into the mind at the same time that the arts of reading and writing have been taught, no doubt there will be instances of dishonest meddling with family affairs, in reading letters that may be lying about; or there will be an equally dishonest practice of secretly writing letters to friends during the hours which ought especially to be devoted to the duties of the house. These are some of the abuses to which the knowledge of this art is liable; but if we hesitate to impart knowledge on this ground, where are we to look for the means of advancing the condition of our fellow-creatures? What department of knowledge is *not* liable to abuse? In the account of the Edinburgh Sessional School we find the following just observation on this subject.

The benefits which *writing* holds out to every class of the community, can hardly be called in question by any one, who, for a single moment, reflects upon the comfort and delight which, especially in situations of danger and distress, a letter is calculated to afford to a distant parent, wife, or other relative or friend. Yet this blessing the opponents of education long withheld from the lower orders, on no better ground than that, like every other blessing, it might, by possibility, be perverted and abused. 'If you teach them to write,' it was said, 'they will learn to forge.' And upon the same principle, they ought, were it possible, to be precluded from the exercise of speech, because they may lie and blaspheme, and have cause to say with Caliban,

You taught me language, and my profit on't
Is, I know how to curse; the red plague rid you
For learning me your language.

This absurd objection, though urged at no remote period, can no longer find any one hardy enough to be its advocate.

There is no doubt but that public opinion has undergone a great change of late years, with respect to education, especially since the deplorable need of it existing both among our manufacturing and agricultural population has been unfolded by means of parliamentary inquiry. If, therefore, we are now disposed to agree that education is imperatively required, and that it is

become a matter of absolute self interest with us, to do something to dissipate the mass of ignorance, which, with all its vicious results, may one day act fatally on our own condition, then does it become an interesting inquiry, not only what are the best means of promoting education in general, but what are the simplest and readiest methods of imparting any particular branch of knowledge. The time allotted to the education of the poor, is necessarily short and interrupted, and it is of high importance to discover the quickest as well as the most interesting modes of teaching, that some of the usual drudgery of education may be lightened or abridged.

With respect to the art of writing (the subject of present consideration) we may remark that instruction in this art may, more easily than many other branches of teaching, degenerate into a dull mechanical employment. The old routine of copies and copy-books is very likely to lead to this, unless the teacher use all his vigilance to prevent it. It is not so much the thing taught as the manner of teaching it, that causes a child to like or dislike any particular study, and, therefore, unless the teacher possess a good *method* with his pupils, not even the consciousness which a child will acquire of the importance of being able to write, will so lead him through the process of acquiring the art, as to make the study a favourite one. Being executed as an irksome task, there is little chance of his attaining that facility in writing which is so desirable in the business of life. It is quite true that the meaning of written characters is more important than their form, and that purity of language, and clearness of expression, are of far more value than beauty of character; yet since everything that is written is also intended to be read, it is of no small consequence that the letters should, at least, be formed with that degree of clearness and precision that shall leave no doubt as to their meaning; while it also enhances the pleasure of reading a manuscript if beauty of character be added to clearness and precision.

We are quite aware of the fact that systems of instruction, however excellent, can never supersede skill on the part of the teacher, although they may tend to make his teaching more practically useful. In looking round on the different systems propounded to us, we feel that, in most departments of knowledge, an intellectual mode of instruction is happily gaining ground, yet we are fully prepared to agree in the opinion of an experienced teacher that "the most perfect school-book will be but a lifeless form, unless the teacher knows how to infuse into it a living spirit."

In teaching to write it is not sufficient that copy after copy be placed before the pupil without the instruction, superintendence, and encouragement of the teacher. That this is too much the case in the lower kind of schools will readily be admitted. The hour employed in writing is looked upon as a time which the teacher may occupy in his own concerns, merely giving an occasional glance to see that nothing egregiously wrong is going on. This neglect on the part of the teacher, together with the uninteresting nature of the copies, which often consist of long words, whose meaning the pupil does not take the trouble to guess at, is a fruitful source of idleness and inattention among the scholars. A slovenly habit of writing is often acquired in these cases, which it takes years to overcome, if it is ever overcome at all.

The mechanical imitation of a certain set of copies, moreover, is not in itself a sufficient guide to the pupils' after progress. Although the copy-book may present a tolerably neat appearance, it is not to be taken for granted that the child would give the right form to any one of those letters, (if he had to write them separately) which, in combination with others, he has contrived to imitate with tolerable exactness. The true secret of teaching to write is so to educate the eye as well as the

hand of the pupil that he may have the power to represent correctly all the forms of which letters are composed,—that he may have, in fact, a command of pen that will adapt itself to any circumstances, and enable him to write in a bold or a flowing manner, as he may require. This can only be done by separating letters into their component parts, and making the pupil perfectly familiar with them before he is required to form letters. It may perhaps be said that this is no more than every child is required to do in the usual mode of teaching to write; for he is instructed first in the form of "strokes," "pothooks," and "hangers," before he commences letters.

Without overlooking the merits of the present system, still less the results which men of talent have been able to produce by its means, we may still affirm that the use of "pot-hooks" and "hangers" is not sufficient to facilitate the child's progress, and that where that progress has been rapid and satisfactory we must ascribe it rather to the talent of the teacher, which will often prevail in spite of a deficiency in the system, than to the facility afforded by the common method. In proof of this we may remark that the "pot-hook" and "hanger" represent only a portion of the forms employed in letters, and this portion is not made use of as much as it might be in aiding the progress of the pupil. For after the first few exercises all remembrance of these forms seems banished, the child is busily engaged in imitating words as such, and seems to derive but little help from the knowledge of the elementary forms. That the progress of children may be really satisfactory, they must be interested to a certain extent in their work, and this is best done by enabling them to comprehend what they are about.

Our continental neighbours have been for some time aware of this fact, and have acted upon it in a way that is worthy of our imitation, if we are not too proud to learn of foreigners. The silly prejudice that long prevailed among Englishmen, of despising and under-rating everything that emanated from the skill or science of foreign lands, is now giving way. We have had too many proofs of the eminence attained by foreigners in literature and the arts to believe any longer that there is nothing to be learnt from them. The greatness of our nation is not tarnished, but enhanced, by our gleaming from every source the fruits of knowledge and experience. It is but the sign of a weak mind to dread the introduction of foreign modes of teaching under the idea that they will prove detrimental to existing interests. If these modes are superior to our own, let us embrace them; if, after fair trial, they are not found to answer the required end, let us reject them. To condemn them without a trial is a folly quite inconsistent with the candour of the English character.

These considerations have been suggested by an examination of the method of teaching writing invented by M. Mulhäuser of Geneva, and now adapted to English use under the sanction of the Committee of Council on Education. The history of this invention is told in the Preface to the *Manual of Writing*, published under the above auspices. From this it appears that Mulhäuser was appointed in 1829 to inspect the schools of Geneva, with a view particularly to ascertain the progress made by the pupils in writing, and not finding it answerable to his wishes, or to what might have been expected under a good system, he prepared a report to that effect, and presented it to the Genevese Commission of Primary Schools. The fault complained of in these schools was the same to which we have already adverted, as being too prevalent in the second and third-rate schools of our own country, *i. e.*, that of requiring the pupil to imitate specimens of writing without any effort on the part of the teacher to enable him to comprehend the elements of the forms presented for imitation, thus cultivating the faculty of imitation, and

the mechanical dexterity of the fingers, without any assistance from the constructive powers. While no small portion of the blame must have been due to the teachers themselves in the case of the Genevese schools, yet the method of teaching in their case, as in our own, was favourable to the kind of negligence into which they had fallen. Mulhäuser was therefore required to prepare an improved plan for instruction in writing, and as this plan, while it embodies the best existing rules, possesses some features peculiar to itself, and likely to be very useful in calling into exercise the activity both of teacher and pupil, we are anxious to make it generally known among our readers. We must first state, however, the reception of the method in the Swiss schools, and its subsequent introduction in those of France. The method of Mulhäuser was not adopted by the commissioners at Geneva without full examination into its merits. Being satisfied with the theory of the method, they submitted it to the test of practice, and then unanimously adopted it. In December, 1831, they thus gave their testimony concerning it.

We have daily reason to congratulate ourselves on the success attending the new method of teaching writing, and to thank the author, to whose perseverance and devotion to the cause of elementary education we owe this improvement. Pages taken at random from the copy-books of the boys, which not being prepared for show are not liable to the charge of unfairness commonly made to selected examples, have been placed before good judges, who have expressed their full approval of them; and it is still more worthy of remark, that the exercises written from dictation, were not inferior to those written as studies of calligraphy. The system, instead of being arbitrary, is reasoned out from first principles, and causes the pupil to make a rapid progress in the art, at the same time that it exercises his intelligence. The division and arrangement of the places preserve perfect order in the class. Everything is in its place at the commencement and end of the lesson. The girls' classes present results not less satisfactory, and some specimens of their writing may rival the best that can be produced in other schools. Many girls who were wholly ignorant at the commencement of the study have been enabled to write words from a dictation of the elements, in five months.

The success which attended Mulhäuser's method at Geneva soon led to its introduction elsewhere. The education committees of Vevy and Lausanne adopted it, and one of the inspectors of schools having witnessed its effects in the case of very young children, studied the system with a view to teach his own son to write by this means. This individual justly remarks,—

To teach children to think is of primary importance; in vain will their memories be loaded with a variety of knowledge, if in the midst of this abundance the thinking powers remain uncultivated; for while we occupy them solely with results, the instrument of thought is neglected, and instruction becomes a useless luxury; instead of a man, we turn out a scholar. We must return to more rational methods, and escape from the routine which converts instruction into mechanism, and the child into an automaton.

In another article we shall describe in detail the features of the system in question.

SOPHISMS are sometimes formed by assigning a wrong cause to some effect. There is a sophism of this kind when it is said that Christianity has caused many bloody wars, cruel persecutions, and barbarous massacres. While in fact, it has been the ferocious passions of men, made more ferocious by the rebuke they have received from the pure and peaceful spirit of Christianity, which have been the real causes of these wars and persecutions.—*Elements of Thought.*

MANKIND often seek society, not with a view to be useful and pleasing to others, or even with any great expectation of being pleased themselves, but merely because they know not how to amuse themselves when alone. But those who associate with others, because they are weary with themselves, are not very likely to contribute to the pleasure or advantage of society.